TITLE

NEAR IR SENSITIVE PHOTOIMAGEABLE/PHOTOPOLYMERIZABLE COMPOSITIONS, MEDIA, AND ASSOCIATED PROCESSES

ABSTRACT OF THE DISCLOSURE

Novel photopolymer compositions are disclosed which contain dyes that absorb strongly in the near infrared (near IR) region of the electromagnetic spectrum. These dyes are useful as photosensitizers for initiating a variety of photoimaging and photopolymerization reactions. Imaging Media are disclosed herein which are sensitive in the near infrared (near IR) region of the electromagnetic spectrum and which can initiate polymerization of ethylenically unsaturated monomer components in negative-acting photopolymer systems and/or which can initiate conversion of a leuco dye to its corresponding colored dye form. These imaging media comprise either a near IR dye photochemical sensitizer, a hexaarylbiimidazole (HABI) photoinitiator, a chain transfer agent, and a photopolymerizable material or a near IR dye photochemical sensitizer, a hexaarylbiimidazole (HABI) photoinitiator, and a leuco dye. These imaging media are useful in a variety of photopolymer products, including photoresists, proofing films, and holographic recording films.

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